

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

1-13. (Canceled).

14. (Currently Amended) A method for rollover stabilization of a vehicle in a critical driving situation, comprising:

ascertaining a mass of the vehicle; ~~and,~~
executing a rollover stabilization algorithm ~~as a function of the mass of the vehicle,~~
the rollover stabilization algorithm intervening in a driver operation in a critical situation using an actuator in order to stabilize the vehicle; and
estimating information on a center of gravity of the vehicle;
wherein the rollover stabilization algorithm is executed as a function of the vehicle mass and the information on the center of gravity of the vehicle, and
wherein the information on the center of gravity of the vehicle is derived from an estimated characteristic speed.

15. (Previously Presented) The method as recited in claim 14, wherein the mass of the vehicle is estimated using an algorithm.

16-18. (Canceled).

19. (Currently Amended) The method as recited in claim ~~[[17]]~~14, wherein the information on the center of gravity of the vehicle is ascertained from the estimated characteristic speed and from a ratio of the contact patch forces of opposite wheels during cornering.

20. (Currently Amended) The method as recited in claim ~~[[16]]~~14, wherein one of an indicator variable or a characteristic property of the rollover stabilization algorithm is determined as a function of one of the mass of the vehicle or the mass of the vehicle and information on the center of gravity of the vehicle, the release of deactivation of the stabilization intervention being a function of the indicator variable.

21. (Currently Amended) The method as recited in claim ~~[[16]]~~14, wherein one of a control threshold value, a system deviation or a controlled variable of the rollover stabilization algorithm is determined as a function of one of the mass of the vehicle or the mass of the vehicle and the information on the center of gravity of the vehicle.

22. (Withdrawn) A vehicle dynamics control system for rollover stabilization of a vehicle in a critical driving situation, comprising:

- a control unit in which a rollover stabilization algorithm is stored;
- a sensor system to record current actual values of driving state variables; and
- an actuator to carry out a stabilization intervention when a rollover-critical situation is detected;

wherein using the sensor system, information is ascertained on a mass of the vehicle and the rollover stabilization algorithm is configured so that a behavior of the control system is a function of the mass of the vehicle.

23. (Withdrawn) The vehicle dynamics control system as recited in claim 22, wherein the control unit includes an algorithm for estimating the mass of the vehicle.

24. (Withdrawn) The vehicle dynamics control system as recited in claim 22, wherein the control unit includes an algorithm for estimating information on a center of gravity of the vehicle, the estimated information being taken into consideration together with the mass of the vehicle during a rollover stabilization.

25. (Withdrawn) The vehicle-dynamics control system as recited in claim 24, wherein the information on the center of gravity of the vehicle is derived from an estimated characteristic speed.

26. (Withdrawn) The vehicle dynamics control system as recited in claim 22, wherein a sensor system includes sensors using a ratio of contact patch forces of opposite wheels is able to be ascertained.

27. (Previously Presented) The method as recited in claim 14, wherein information is estimated on a center of gravity of the vehicle, wherein the rollover stabilization algorithm is executed as a function of the vehicle mass and the information on the center of gravity of the vehicle, wherein the information on the center of gravity of the vehicle is at least one of (i) derived from an estimated characteristic speed, and (ii) ascertained from a ratio of contact patch forces of opposite wheels during cornering, and wherein one of an indicator variable or a characteristic property of the rollover stabilization algorithm is determined as a function of one of the mass of the vehicle or the mass of the vehicle and information on the center of gravity of the vehicle, the release of deactivation of the stabilization intervention being a function of the indicator variable.

28. (Previously Presented) The method as recited in claim 27, wherein the information on the center of gravity of the vehicle is ascertained from the estimated characteristic speed and from a ratio of the contact patch forces of opposite wheels during cornering.

29. (Previously Presented) The method as recited in claim 27, wherein one of a control threshold value, a system deviation or a controlled variable of the rollover stabilization algorithm is determined as a function of one of the mass of the vehicle or the mass of the vehicle and the information on the center of gravity of the vehicle.

30. (New) A method for rollover stabilization of a vehicle in a critical driving situation, the method comprising:

- ascertaining a mass of the vehicle;

- executing a rollover stabilization algorithm;

the rollover stabilization algorithm intervening in a driver operation in a critical situation using an actuator in order to stabilize the vehicle; and

- estimating information on a center of gravity of the vehicle;

wherein the rollover stabilization algorithm is executed as a function of the vehicle mass and the information on the center of gravity of the vehicle, and

wherein the information on the center of gravity of the vehicle is ascertained from a ratio of contact patch forces of opposite wheels during cornering.